



Kidney news

Volume 5 Issue 1
March 2003

Introduction

Welcome to the new-look kidney news.

I was away late 2002, and thankfully locum, Dr Sharad Ratanjee, was again available to manage your referrals.

Consulting rooms

I am now back, and my rooms, along with the Eastcare Specialist Centre have moved to the **new permanent site at 260 Botany Road**. The appointments telephone number remains 5373578.

South Auckland rooms at **Takanini Care** are still open.

Soon I will have opened a Thursday clinic on the **North Shore**, in the **Waitemata Surgeons new Specialist Rooms in Takapuna**, near North Shore Hospital.

Website

I have been further developing my website:

<http://www.kidney.net.nz>

The website is operational, however, I am having trouble with formatting of the old kidney news' which you may have seen, sorry – still working on that.

<http://www.kidney.net.nz/Newsletters.htm>

The information sheets are ready to be loaded in the next month. These are primarily general public and patient information sheets. I have many titles planned to add. These will hopefully be useful to you to print out, or direct patients to, for general information from time to time.

<http://www.kidney.net.nz/GFRcalculator.htm>

The GFR calculator I would encourage you to use. This has been up and running for over six months, and hopefully is of use to those who have found it! My website calculator does not

correct for gender. This need addressing – and I will soon. Women have a higher percentage of body fat. My website result should be multiplied by 0.85 to correct for this fact.

The patient's age, weight in kilograms, height in centimetres and plasma (serum) creatinine are all that is required for the calculation.

Pedantically, the weight used should be the *ideal* body weight (not the *actual*). This difference makes little clinical difference unless the patient is markedly overweight. When I include gender in the website, the calculator will automatically do this correction for you, as well as the 0.85 factor for women.

The result you get on my website is different from the cardboard slide-rule GFR calculator recently released by the Department of Health. The DoH calculator does not correct for body size – whereas the website does. You will get slightly more accurate calculations with the website calculator - but again there is little clinical significance.

GFR Calculator

GFR Calculator Appointments Information sheets Newsletters

Age in years: 60
Weight (Kg): 80
Height (cm): 175
Serum creatinine: 0.14
Measurement: Millimoles/litre

Calculate Reset

GFR is: 0.82 ml/sec (or 49.24 ml/min)

In the example pictured above from my website, the male aged 60 years, who is 1.75m tall, with a creatinine of 0.14mM, has moderately impaired renal function with a corrected GFR of 48 ml/min/1.73m² body surface area.

Kidney news is produced in the interest of education of all medical practitioners in the management of kidney disease or general conditions that may affect the kidneys. Previous versions are available at www.kidney.net.nz/newsletters.htm.

With the use of ACE inhibitors and angiotensin receptor blockers; the now-wider availability of erythropoietin; and more evidence showing that early and aggressive management of blood pressure delaying, or protecting, the kidney from further deterioration we are encouraging early referral of any patient with a GFR below 1ml/sec (60ml/min) / 1.73m² body surface area.

Why refer / what can we do?

ACE inhibitors and ARBs do reduce the progression of chronic renal failure in diabetes mellitus, and some glomerulonephritides, over and above their anti-hypertensive properties. Presently, there seems no scientific reason to not assume the proven benefits can be extrapolated to other renal conditions. So the early introduction of these agents, after their diagnosis, is encouraged.

ACEIs do reduce proteinuria by 30 to 50% in most cases. As proteinuria is toxic to the kidney, early detection and reduction of this proteinuria seems worthwhile.

Aggressive BP management, so the systolic is below 130 mmHg and the diastolic below 80, has been shown to benefit the kidneys by delaying the progression rate of CRF.

Diagnosis of, and early management of, **proteinuria >1G** can allow early treatment of proteinuria (with ACEIs and / or ARBs; and immunosuppressives where appropriate) that may otherwise lead to renal damage.

Early in established chronic renal failure (CRF), certainly once the corrected GFR is as low as 1 ml/sec/1.73m² BSA (60ml/min/1.73m²), dietary **restriction of dietary protein** may be of value in delaying the further progression of CRF. Renal physician and experienced renal dieticians are required to ensure malnutrition does not ensue as a result of the implementation of such restrictions.

Cessation of smoking and control of hyperlipidaemia are also beneficial to the renal vasculature.

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Qualifications

BSc (Biochemistry, Otago) 1981

MBChB (Otago) 1984

FRACP 1992

MRCP(UK) 1993

Interests

Investigation of renovascular disease and hypertension

Management of urinary tract infections

Investigation of urinary calculi

Investigation of proteinuria and haematuria

Early detection, investigation and management of impaired renal function.

Renal nutrition.

Consulting Rooms

Eastcare Specialist Centre

260 Botany Road,

BOTANY DOWNS

Appointments telephone 5373578

Takanini Care Accident & Medical Clinic

106 Great South Road,

TAKANINI

Appointments telephone 09 2997670

Waitemata Specialist Centre

15 Shea Terrace

TAKAPUNA

Appointments telephone 4412750

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